Air
Land
Sea
Space
Cyberspace

Innovation. In all domains.

Are Best Practices Tribal Knowledge?

Elaine Iba & Olivia Wolff

Network Centric Systems

Raytheon Company

May 17, 2011

Report Documentation Page

1. REPORT DATE **17 MAY 2011**	2. REPORT TYPE	3. DATES COVERED **00-00-2011 to 00-00-2011**
4. TITLE AND SUBTITLE **Are Best Practices Tribal Knowledge?**		5a. CONTRACT NUMBER
		5b. GRANT NUMBER
		5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)		5d. PROJECT NUMBER
		5e. TASK NUMBER
		5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Raytheon Company,Network Centric Systems,Fullerton,CA,92833**		8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES
Presented at the 23rd Systems and Software Technology Conference (SSTC), 16-19 May 2011, Salt Lake City, UT. Sponsored in part by the USAF. U.S. Government or Federal Rights License

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**24**	

Introduction

- Elaine Iba, Solution Integrator, Engineering Execution Center
- Olivia Wolff, Solution Integrator, Engineering Execution Center

- Raytheon Network Centric Systems, Fullerton
  - Highways Transportation Management Systems
  - Networked Communications Systems
  - Command & Control Systems
  - Battlefield Radar
  - Navigation and Landing Systems

Overview

- Are Best Practices (BPs) tribal knowledge?

- Best practices are critical to consistent business success but they often fall by the wayside

- New challenge: Re-invigorating best practices across a multi-generational and ever changing workforce

- Showcase one organization's innovative approach to introduce, reinforce, and re-invigorate the use of best practices across a diverse staff

What is a best practice?

- "The most effective or efficient method of achieving an objective or completing a task." *- Encarta World English Dictionary*

- **Our Working Definition:** A way of doing things such as a process, technique, or activity, that has proven particularly efficient and effective in accomplishing a task or goal in a consistent manner.

- Best Practice Example: Peer Reviews
  - Falling by the wayside
  - Tribal Knowledge

Business Case for Best Practices

- Facilitates uniformity and consistency in behaviors across a company

- Allows the company and the customer to have confidence in their product's quality

- Enhances competitiveness within the business market
  - Helps avoid costly mistakes by benefiting from the experience of others

- Saves time and resources by not reinventing the wheel

**Need to re-invigorate BPs to ensure
the company reaps the benefits**

Why are BPs falling by the wayside?

- **Taken for granted**
  - Organizations often overlook that new hires need to be brought up to speed
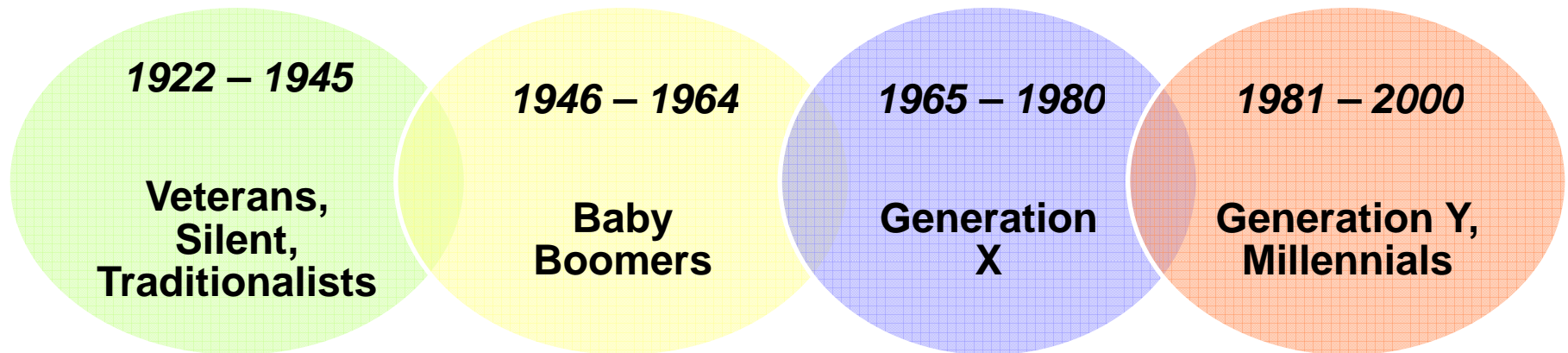 - Just because a BP is documented, doesn't mean it's followed

- **Lack of positive reinforced**
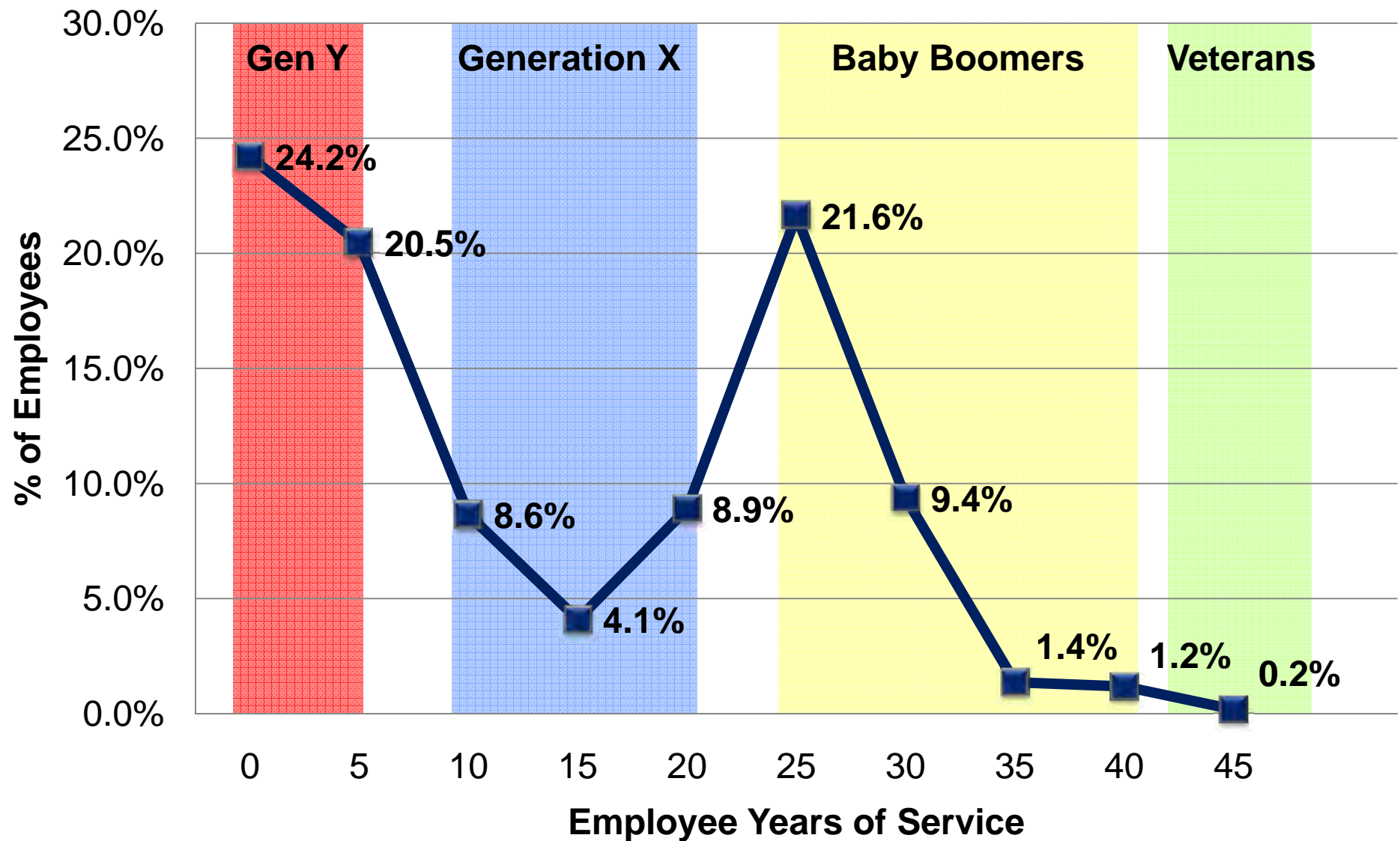 - Reinforcement of best practices is overlooked

Why are BPs falling by the wayside?

- **Multi-generational Workforce**
  - New challenge
  - First time in history that four generations make up the workforce

1922 – 1945

Veterans, Silent, Traditionalists

1946 – 1964

Baby Boomers

1965 – 1980

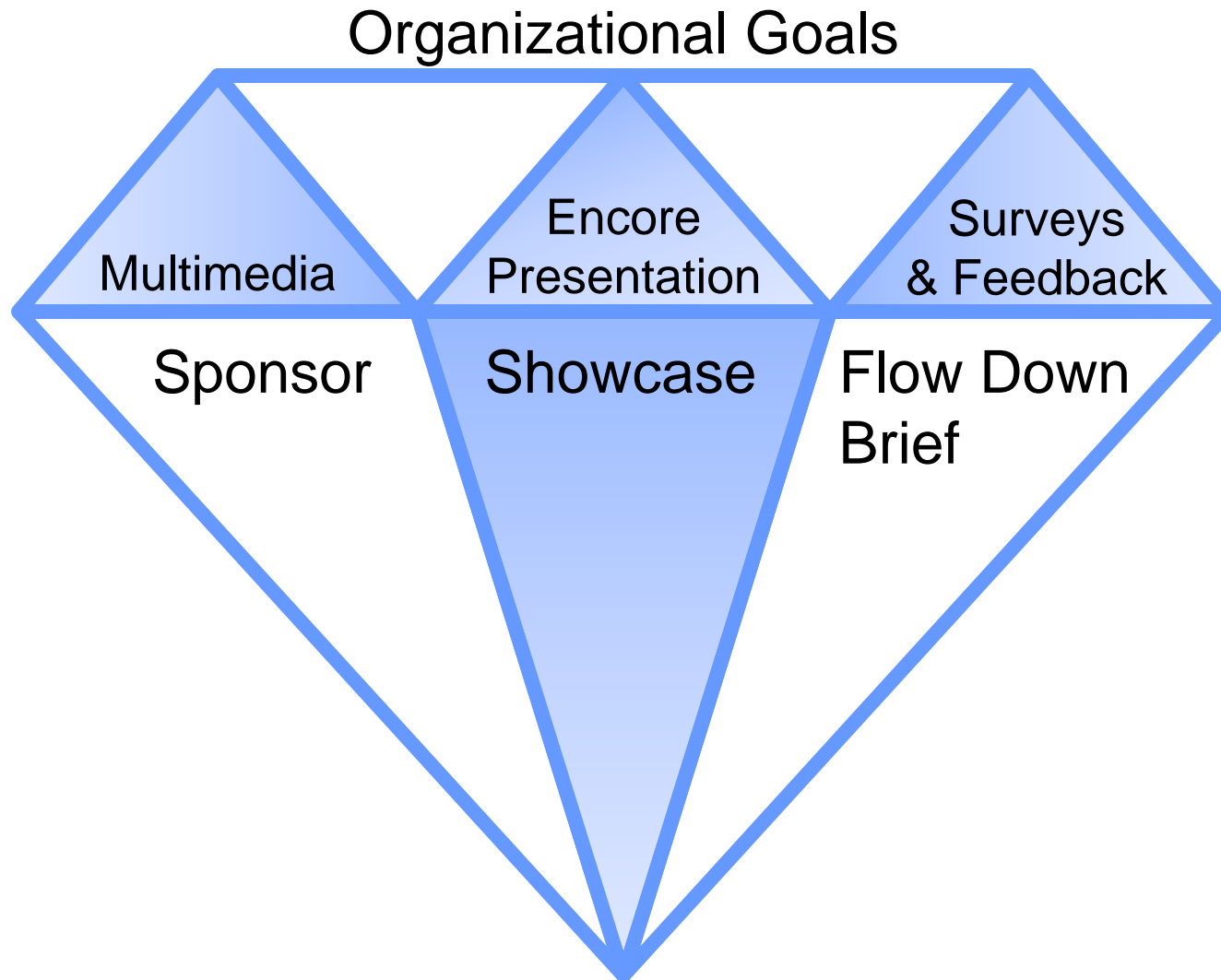**Generation X**

1981 – 2000

Generation Y, Millennials

Generational Workplace Characteristics

	Veterans 1922-1945	Baby Boomers 1946-1964	Generation X 1965 - 1980	Generation Y 1981 - 2000
Work Ethics & Values	Hard work, respect authority	Workaholics, question authority	Self-reliance, wants structure and direction	Multitasking, tolerant, goal oriented
Leadership Style	Directive, Command and control	Consensual, Collegial	Challenge others, ask why	Building relationships, collaborative
Interactive Style	Individual	**Team Player, loves to have meetings**	Entrepreneur	**Participative**
Communication	**Formal, memo**	**In person**	**Direct, immediate**	**Internet, social networks**
Messages that Motivate	**Your experience is respected**	**You are valued and needed**	Do it your way, forget the rules	**Working with other bright, creative people**

Not everyone fits into their generation

One approach to re-invigorate BPs

Organizational Goals

Multimedia

Encore Presentation

Surveys & Feedback

Sponsor

Showcase

Flow Down Brief

One approach to re-invigorate BPs

Organizational Goals

Multimedia

Encore Presentation

Surveys & Feedback

Sponsor

Showcase

Flow Down Brief

No longer a *diamond in the rough*

The Best Practice "Showcase"

- **Goal - high level best practice reminder**
  - Not a training course, an enticing appetizer

- **Structured format**
  - Focus on audience
  - Attention to detail
  - Time table checklist

- **Utilized existing resources**
  - Exercised on a shoestring budget

Showcase Framework

- **Host introduction**
  - Use practitioner (i.e., audience peer) to deliver message

- **A word from our sponsors…**
  - Ensure practitioners understand importance
  - Use popular music/theme to appeal to audience's senses, keep learning fun
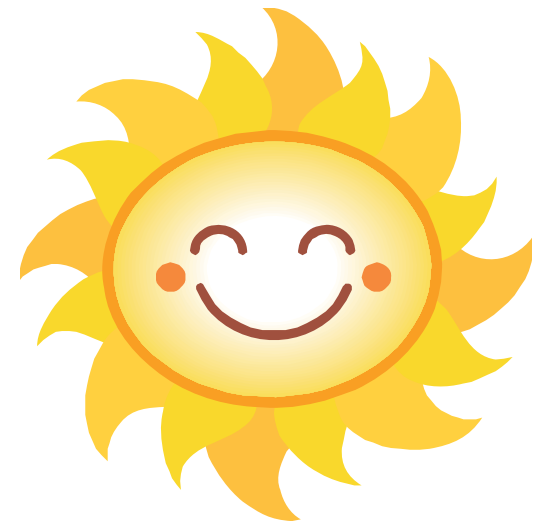
- **Best Practice Overview**
  - A succinct explanation of the best practice and its benefits
  - Engage audience by sharing experiences and asking questions
  - Feature evolution of best practice
    - Highlight what is new to help them do their job

Showcase Framework

- **Demonstration**
  - Highlighting one technique to improve efficiency while following the BP
  - New presenter mixes up presentation flow and keeps meeting dynamic

- **Audience testimonials**
  - Share success stories
  - "Word of mouth" advertising has a greater impact coming from peers with realized results

- **Future direction**
  - Share path forward
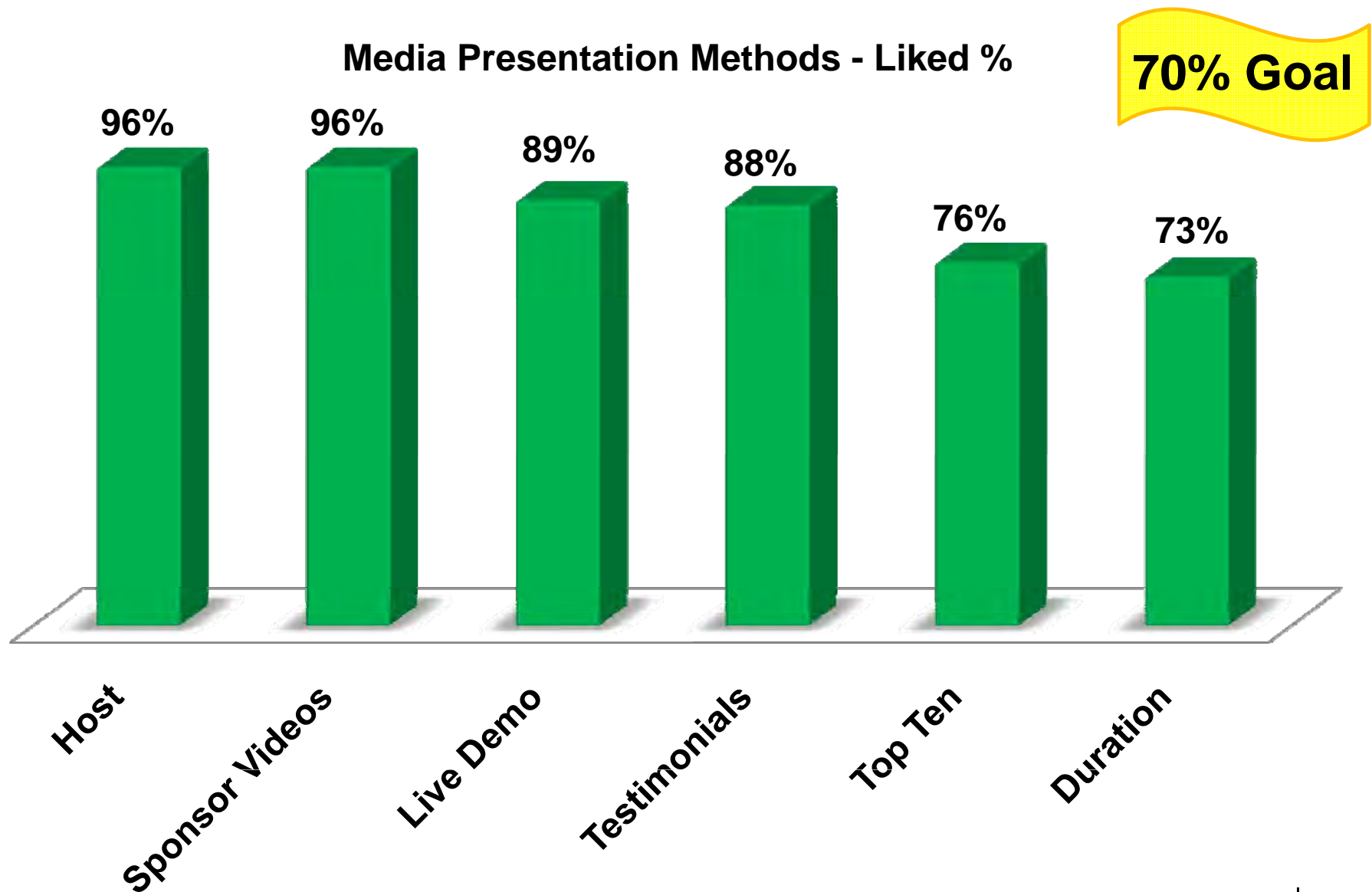 - Let audience know they can influence the future

Showcase Framework

- Guidance
  - How can I implement what I just learned?
  - Who can help me get started?

- Questions from Audience

- Top Ten
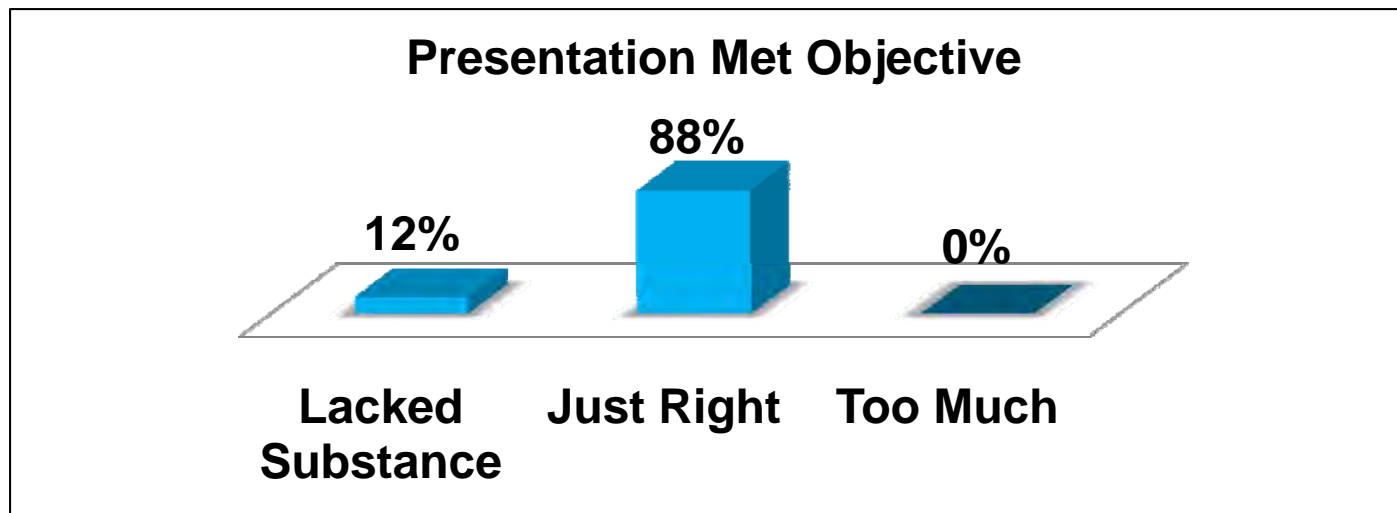 - Light-hearted way to cement take away objectives
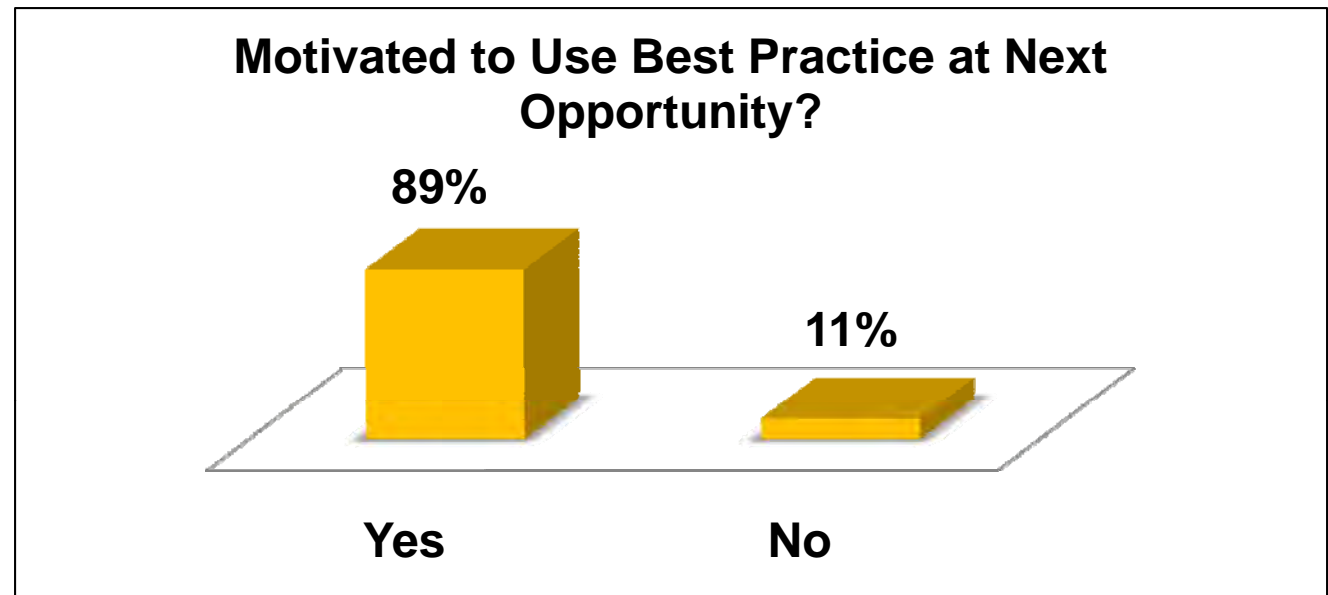
Want people to leave smiling

Attendees Feedback - Survey

Motivated to Use Best Practice at Next Opportunity?

89% Yes
11% No

Presentation Met Objective

12% Lacked Substance
88% Just Right
0% Too Much

70% Goal

Summation

- Best Practices (BPs) are more than just tribal knowledge

- BPs need to be re-invigorated to retain competitive edge
  - Keep up with changing workforce
  - Evolution and improvement of BPs

- A concerted effort is needed to ensure BPs don't fall by the wayside

- Our approach addressed generational differences and proved successful

What will you do to keep your BPs alive?

Questions

Raytheon

Bibliography and References

"Best Practice." *Encarta World English Dictionary*. Microsoft, 2009. Web. <http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=best%20practice>.

Hammill, Greg. "Managing Four Generations of Employees." *FDU Magazine Online* 2005: 1-7. Web. 2 Mar 2011. <http://www.fdu.edu/newspubs/magazine/05ws/generations.htm>.

Stone, Brad. "The Children of Cyberspace: Old Fogies by Their 20s." *New York Times* 09 Jan 2010: 1-3. Web. 2 Jan 2011. <http://www.nytimes.com/2010/01/10/weekinreview/10stone.html>.

Thompson, Mary. "Generation Gaps in the Workplace." MSNBC, 29 08 2003. Web. 2 Mar 2011. <http://msnbc.msn.com/id/3072412>.

"Three Different Learning Styles." The University of South Dakota, 2009. Web. 2 Jan 2011. <http://people.usd.edu/~bwjames/tut/learning-style/styleres.html>.

Presenter Biography

- ## Sally Cheung (retired)

  Sally Cheung is a Solution Integrator for Raytheon Network Centric Systems (NCS) at Fullerton, CA. She leads special projects to identify, develop and implement solutions to improve program execution and performance. Past positions included Technical Director (TD) for the NCS Measurement Council, SW Process TD, Measurement lead, team lead, and SW technical director. She was a major contributor to her organization in achieving four Level 5 ratings. Specialized in high maturity processes, she had participated in many Level 5 SCAMPI appraisals.

  Ms. Cheung has a BS in Information and Computer Science from University of California at Irvine.

Presenter Biography

- ## Elaine Iba

  Elaine M. Iba is a Solution Integrator in the Engineering Execution Center (EEC) for Raytheon Network Centric Systems (NCS) in Fullerton, CA. She started her career designing hardware for the defense industry, later switching to technical marketing and strategic planning for commercial semiconductors. At Raytheon, she served as Hardware Process Technical Director in the Engineering Process Group prior to joining the EEC. In her current role, she works with programs on specific problems to orchestrate solutions that bring measurable performance improvement.

  Ms. Iba holds a BS in Electrical Engineering from California State University, Long Beach and an MS in Electrical Engineering from the University of Southern California.

Presenter Biography

- ## Olivia Wolff

  Olivia Wolff is a Solution Integrator in the Engineering Execution Center (EEC) for Raytheon Network Centric Systems at Fullerton, CA. She has been with Raytheon for four years. As a solution integrator, she identifies, develops, and implements solutions to issues associated from programmatics to process to core business needs.

  Ms. Wolff earned both her BS in Computer Science and MS in Software Engineering from California State University, Fullerton.

Acronyms

- BP – Best practice

- BPs – Best practices

- Gen X – Generation X

- Gen Y – Generation Y